

AMENDMENTS TO THE CLAIMS

This listing of the claims will replace all prior versions and listings of the claims in the application.

1-4. (Cancelled)

5. (Previously presented) A method of delivering a substance to the-nasal airway of a subject, comprising the steps of:

sealing one of the nostrils of a subject to an outlet of a delivery unit such as to prevent the escape of a gas flow through the one nostril;

closing the oropharyngeal velum of the subject; and

delivering a gas flow entraining a substance through the outlet at such a driving pressure as to flow around the posterior margin of the-nasal septum and out of the other nostril of the subject, wherein the gas flow entraining a substance is provided by actuation of a supply unit.

6. (Previously presented) The method of claim 5, wherein the gas flow entraining a substance is separate to an exhalation flow of the subject.

7. (Original) The method of claim 6, wherein the supply unit is actuated by the exhalation flow of the subject.

8. (Original) The method of claim 5, further comprising the step of controlling the flow rate of the gas flow delivered by the supply unit.

9. (Previously presented) A method of delivering a substance to the nasal airway of a subject, comprising the steps of:

sealing one of the nostrils of a subject to an outlet of a delivery unit such as to prevent the escape of a gas flow through the one nostril;

closing the oropharyngeal velum of the subject; and
delivering a gas flow entraining a substance through the outlet at such a driving pressure as to flow around the posterior margin of the-nasal septum and out of the other nostril of the subject, wherein the gas flow entraining a substance is provided by an impeller driven by an exhalation flow of the subject.

10. (Cancelled)

11. (Currently amended) A method of delivering a substance to the nasal airway of a subject, comprising the steps of:

sealing one of the nostrils of a subject to an outlet of a delivery unit such as to prevent the escape of a gas flow through the one nostril;

closing the oropharyngeal velum of the subject;

delivering a gas flow entraining a substance through the outlet at such a driving pressure as to flow around the posterior margin of the-nasal septum and out of the other nostril of the subject; and

providing a flow resistance to the gas flow exiting the other nostril of the subject such as to maintain a dynamic positive pressure in the nasal airway of the subject, wherein the gas flow, while under resistance, continues exiting the other nostril.

12. (Original) The method of claim 11, wherein the dynamic positive pressure is of sufficient magnitude as to force open at least one of the auditory tubes or the sinus tubes.

13. (Previously presented) The method of claim 11, further comprising the step of adjusting the flow resistance in maintaining the dynamic positive pressure in the nasal airway of the subject.

14. (Original) The method of claim 11, wherein the dynamic positive pressure is at least 5 cm H₂O.

15. (Original) The method of claim 14, wherein the dynamic positive pressure is at least 50 cm H₂O.

16. (Original) The method of claim 15, wherein the dynamic positive pressure is at least 100 cm H₂O.

17. (Original) The method of claim 16, wherein the dynamic positive pressure is at least 200 cm H₂O.

18. (Original) The method of claim 11, further comprising the step of providing at least one of a visual or an audible signal when a predeterminable pressure has been achieved in the nasal airway.

19-39. (Cancelled)

40. (Previously presented) A method of delivering a substance to the nasal airway of a subject, comprising the steps of:

- sealing one of the nostrils of a subject to an outlet of a delivery unit such as to prevent the escape of a gas flow through the one nostril;

- closing the oropharyngeal velum of the subject; and

- delivering a gas flow entraining a substance through the outlet at such a driving pressure as to flow around the posterior margin of the nasal septum and out of the other nostril of the subject, wherein the gas flow entraining a substance is delivered at a rate of at least 20 liters per minute.

41. (Previously presented) A method of delivering a substance to the nasal airway of a subject, comprising the steps of:

- sealing one of the nostrils of a subject to an outlet of a delivery unit such as to prevent the escape of a gas flow through the one nostril;

- closing the oropharyngeal velum of the subject; and delivering a gas flow

entraining a substance through the outlet at such a driving pressure as to flow around the posterior margin of the-nasal septum and out of the other nostril of the subject, wherein the gas flow entraining a substance is delivered at a rate of about 1 to 20 liters per minute.

42. (Previously presented) The method of claim 41, wherein the gas flow entraining a substance is delivered at a rate of about 3 to 15 liters per minute.

43. (Previously presented) The method of claim 11, 40, or 41, further comprising the step of using a pressure-sensitive valve to trigger release of the substance when a predetermined flow rate has been achieved.

44. (Previously presented) The method of claim 43, wherein the pressure-sensitive valve is not opened until the subject has maintained a predetermined flow rate, and can be closed when the flow rate drops below the predetermined flow rate so as to stop delivery of the substance.

45. (Previously presented) A method of delivering a substance to the nasal airway of a subject, comprising the steps of:

- sealing one of the nostrils of a subject to an outlet of a delivery unit such as to prevent the escape of a gas flow through the one nostril;

- closing the oropharyngeal velum of the subject; and

- delivering a gas flow entraining a substance through the outlet at such a driving pressure as to flow around the posterior margin of the-nasal septum and out of the other nostril of the subject, wherein a metered dose of the substance is mechanically dispensed into a delivery chamber.

46. (Previously presented) The method of claim 45, wherein the substance after being dispensed is gradually released from the delivery chamber into the gas flow.

47. (Previously presented) The method of claim 5, 11, 40, 41 or 45, wherein the gas flow

entraining a substance is provided by an exhalation flow of the subject, the substance is a dry powder, and the surface properties of the powder have been modified to prevent agglomeration of the powder when it comes into contact with the exhalation flow.

48. (Previously presented) The method of claim 5, 11, 40 or 41, wherein the gas flow entraining a substance is provided by an exhalation flow of the subject, the substance is a dry powder contained in a dispersion chamber prior to being exposed and entrained in the exhalation flow, and there is a moisture-absorbing element disposed upstream of the dispersion chamber.

49. (Previously presented) The method of claim 48, wherein the moisture-absorbing element is a desiccant.

50. (Previously presented) The method of claim 48, wherein the moisture-absorbing element is a filter.

51. (Previously presented) The method of claim 50, wherein the filter acts as a flow resistor to the exhalation flow.

52. (Previously presented) The method of claim 5, 9, 11, 40, 41 or 45, wherein velum closure is provided by exhalation by the subject.

53. (Previously presented) The method of claim 52, wherein the exhalation is through a flow resistor so as to maintain a positive pressure differential between an oral cavity and the nasal airway of the subject sufficient to maintain the velum in a closed position.

54. (Previously presented) The method of claim 53, wherein the flow resistor is configured to maintain a positive pressure differential of at least about 5 cm H₂O between the oral cavity and the nasal airway of the subject.

55. (Previously presented) The method of claim 5, 11, 40, 41 or 45, wherein the gas flow entraining a substance is provided by an exhalation flow of the subject.

56. (Previously presented) The method of claim 5, 9, 11, 40, 41 or 45, further comprising the step of: providing at least one of a visual or an audible signal on exhalation by the subject.

57. (Previously presented) The method of claim 56, wherein the visual signal comprises a movement of a display member into view.

58. (Previously presented) The method of claim 5, 9, 11, 40, 41 or 45, wherein the substance comprises a dry powder.

59. (Previously presented) The method of claim 5, 9, 11, 40, 41 or 45, wherein the substance comprises liquid droplets.

60. (Previously presented) The method of claim 59, wherein the liquid droplets comprise one of a solution or a suspension.

61. (Previously presented) The method of claim 58, wherein the powder has a particle size distribution, a major fraction of which is in a range of about 1 to 10 μm .

62. (Previously presented) The method of claim 58, wherein the powder has a particle size distribution substantially in a range of about 1 to 10 μm .

63. (Previously presented) The method of claim 5, 9, 11, 40, 41 or 45, wherein the substance contains a medicament.

64. (Previously presented) The method of claim 5, 9, 11, 40, 41 or 45, wherein the substance comprises a cleansing agent for cleansing the nasal airway.

65. (Previously presented) The method of claim 5, 9, 11, 40, 41 or 45, wherein the substance comprises an irrigating agent for irrigating the nasal airway.
66. (Previously presented) The method of claim 5, 9, 11, 40, 41 or 45, in delivering a substance to a posterior region of the nasal airway.
67. (Previously presented) The method of claim 5, 9, 11, 40, 41 or 45, in the treatment of nasal inflammation.
68. (Previously presented) The method of claim 5, 9, 11, 40, 41 or 45, in the treatment of nasal polyps.
69. (Previously presented) The method of claim 5, 9, 11, 40, 41 or 45, in the treatment of hypertrophic adenoids.
70. (Previously presented) The method of claim 5, 9, 11, 40, 41 or 45, in the treatment of secretory otitis media.
71. (Previously presented) The method of claim 5, 9, 11, 40, 41 or 45, in the treatment of reduced olfaction.
72. (Previously presented) The method of claim 67, in the treatment of rhinitis.
73. (Previously presented) The method of claim 59, wherein the liquid droplets have a particle size distribution, a major fraction of which is in the range of about 1 to 10 μm .
74. (Previously presented) The method of claim 59, wherein the liquid droplets have a particle size distribution substantially in a range of about 1 to 10 μm .

75. (Previously presented) The method of claim 5, 9, 11, 40, 41 or 45, wherein the substance comprises a pharmaceutical.

76. (Previously presented) The method of claim 63, wherein the medicament is for a treatment of a nasal condition.